

by targeting prophylaxis based on patient genotype. The deterministic sensitivity analysis showed that the savings is most dependent on the incidence of invasive fungal infection, cost of treating an invasive fungal infection, and frequency of <sup>17</sup> in the population. **CONCLUSIONS:** Genotyping AML patients for CYP2C19<sup>17</sup> prior to induction-consolidation is expected to be cost-neutral or potentially cost-saving by reducing the incidence of invasive fungal infections compared to standard prophylaxis. These results may mitigate potential budgetary concerns, thereby reducing barriers to a test that can be clinically beneficial to AML patients.

## PCN46

# BUDGET IMPACT ANALYSIS OF THE INTRODUCTION OF NEW THERAPEUTIC AGENTS FOR THE TREATMENT OF METASTATIC CASTRATION RESISTANT PROSTATE CANCER (MCRPC) PATIENTS AFTER DOCETAXEL FAILURE IN THE BRAZILIAN PRIVATE HEALTH SYSTEM

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**OBJECTIVES:** In the latest years several drugs demonstrated to increase survival in mCRPC patients post chemotherapy failure. However, issues remain related to the treatment sequencing of these drugs. The aim of this study is to estimate the budget impact of the introduction of enzalutamide in the Brazilian Private Health System. **METHODS:** A deterministic state transition budget impact model (BIM) was developed to estimate treatment costs of mCRPC patients after chemotherapy failure over a 3-year time horizon. Budget impact was estimated comparing a baseline scenario including mandatory coverage drugs (abiraterone, cabazitaxel) with an alternative scenario including all treatment options (abiraterone, cabazitaxel and enzalutamide). Target population, dosing, duration of therapy and sequencing was based on scientific literature. Pharmaceutical direct costs were based on factory price, assuming parity price of enzalutamide and abiraterone. Univariate Deterministic sensitivity analysis was conducted to determine the impact of parameters on results. **RESULTS:** The BIM estimates that a total of 5,789 patients will be treated in the next three years, with annual cost estimates in the baseline scenario of R\$83,944,041 in year 1, reaching R\$198,507,065 in year 3 of the simulation. The introduction of enzalutamide would incur a total increase in costs of R\$16,649,325 after 3 years. In deterministic sensitivity analysis, enzalutamide price, proportion of patients receiving additional treatment line and duration of therapy were the most important variables that impacted results, with the alternative scenario remaining more costly than the baseline scenario in all simulations, incurring additional costs ranging from R\$6,634,955 to R\$38,818,233. **CONCLUSIONS:** Considering current available evidence regarding treatment sequencing, the introduction of enzalutamide is expected to increase costs to the Brazilian Private Health System.

## PCN47

# BUDGET IMPACT MODEL OF CEPLENE® AS MAINTENANCE THERAPY IN ADULT PATIENTS WITH ACUTE MYELOID LEUKEMIA IN FIRST REMISSION

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**OBJECTIVES:** To assess the economic impact of Ceplene® with low-dose Interleukin-2 (IL-2) for the treatment of adult patients with Acute Myeloid Leukemia (AML) in first complete remission (CR-1) which previously received intensive chemotherapy in Spain. **METHODS:** A budget impact model was developed using the perspective of the Spanish National Health System with a 4-year time horizon. Ceplene®/IL-2 was compared with no treatment and an unrelated allogeneic hematopoietic stem cell transplant (allo-HSCT). For both treatment options and no treatment, health care costs (EUR 2013) including medical visits, hospitalisations, laboratory and diagnostic tests, prophylactic measures, treatment of complications and infections were considered. Average treatment costs per patient up to a maximum of three years were estimated for both treatment options and no treatment depending on the probability of overall survival without or with a relapse, and death without relapse, as well as the duration until relapse or death without relapse during this period. Total annual health care costs were estimated based on the annual per patient cost, the target population, and the market shares associated with each option, before and after the introduction of Ceplene®/IL-2. **RESULTS:** Patients eligible for Ceplene®/IL-2 were estimated at 1,502 in 2013 with a small increase up to 1,509 in 2016. The overall budget impact with the introduction of Ceplene®/IL-2, is estimated to decrease with €674,149 and €728,945 in 2014 and 2016, and an increase of €202,322 in 2015. Overall budget impact savings over the period 2014-2016 are estimated at €1,130,894. **CONCLUSIONS:** The introduction of Ceplene®/IL-2 as maintenance therapy supposes savings in the budget impact for the treatment of AML patients in CR-1 in Spain. Ceplene®/IL-2 is expected to fulfil a direct medical need for patients not eligible or having an unfavourable profile for an unrelated allo-HSCT receiving no treatment, and those who received an unrelated allo-HSCT with unfavourable prognostics.

## PCN48

# BUDGET IMPACT ANALYSIS OF THE USE OF CRIZOTINIB FOR NON-SMALL CELL LUNG CANCER AND ALK+ MUTATION IN THE TWO MAIN PUBLIC HEALTH CARE INSTITUTIONS IN MEXICO

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**OBJECTIVES:** Standard treatment for lung cancer (LC) in Mexico is chemotherapy. Crizotinib is the only therapy approved for patients with ALK+ advanced non-small cell lung cancer (NSCLC), a low prevalence condition. This analysis aims to estimate the economic impact of using crizotinib for patients with ALK+ advanced NSCLC in the Mexican setting from public health care institution perspective. **METHODS:** A budget impact analysis with a one-year time horizon was developed to compare expected costs that the Mexican Social Security Institute (IMSS) and the Safety and Social Services for State Workers Institute (ISSSTE) public health care institutions would incur if they were to include crizotinib on their formularies. Using epidemiology data from published sources, a total of 3,023 potential patients with LC were

identified at IMSS and 631 at ISSSTE, 2,570 and 536 of them with NSCLC. A 4.2% ALK+ rate was assumed. Direct medical costs of standard treatment for LC were obtained from a published source. Cost for crizotinib was given by the manufacturer. All costs are expressed in 2014 USD (\$1USD=\$13MXN). Two scenarios are presented: 1) world without crizotinib, where all patients with LC are treated with standard treatment; 2) world with crizotinib, where patients with ALK+ advanced NSCLC are treated with crizotinib and all other LC patients are treated with standard treatment. **RESULTS:** 81 and 17 ALK+ advanced NSCLC patients were identified in IMSS and ISSSTE, respectively. Total costs in a world "without" and "with" crizotinib using a one-year time horizon is \$50.3 and \$52.9 million, respectively, for IMSS. For ISSSTE, total costs were \$10.5 versus \$11.1 million. The combined incremental budget impact across both public health care institutions is 5.2%. **CONCLUSIONS:** Crizotinib, the only drug approved for the treatment of ALK+ advanced NSCLC patients has a minimal incremental budget impact on the overall expenditure within the two main Mexican public health care institutions.

## PCN49

# BUDGET IMPACT ANALYSIS OF EVEROLIMUS PLUS EXEMESTANE VERSUS GEMCITABINE PLUS PACLITAXEL AND CAPECITABINE PLUS DOCETAXEL IN METASTATIC BREAST CANCER PATIENTS IN EGYPT

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**OBJECTIVES:** To estimate the budget impact of everolimus-exemestane versus the most commonly used regimens in the Egyptian practice; gemcitabine-paclitaxel and capecitabine-docetaxel for a health care plan that introduces everolimus for post-menopausal hormone receptor positive, human epidermal growth factor receptor-2 negative metastatic breast cancer (HR+, HER2-MBC) patients over three years. **METHODS:** Drug and medical budget impacts (2013 EGP) were estimated over the first three years of the three drug regimens use from the health insurance perspective. Epidemiology data were used to estimate target population size. The treatment data for MBC patients were obtained from published and nonpublished sources. The model considered 2 scenarios—without (pre) and with (post) everolimus-exemestane. Monthly medical costs were calculated for the pre- and post-progression phase. Results were considered on a per member per month (PMPM) basis to examine the relative impact on the plan. Deterministic sensitivity analyses were conducted. **RESULTS:** In a real-world 6,055,902 targeted patients, 288,261 of them were found to be candidates for everolimus-exemestane regimen. For patients taking gemcitabine-paclitaxel and capecitabine-docetaxel regimens, the estimated incremental cost PMPM was LE3.00 and LE2.94 respectively for each after three years. The estimated incremental cost PMPM for the gemcitabine-paclitaxel population was LE0.62, LE2.60 and LE5.77 for year 1, 2 and 3 respectively while for the capecitabine-docetaxel population was LE0.59, LE2.54 and LE5.70 for year 1, 2 and 3 respectively. The capecitabine-docetaxel results were most sensitive to the cost of everolimus while gemcitabine-paclitaxel results were most sensitive to the number of eligible patients. **CONCLUSIONS:** Increased acquisition costs of everolimus-exemestane for HR+, HER2-MBC treatment are expected to be obviously offset by both the reduced number of progressed patients and the relatively small medical costs due to avoided adverse events of each of gemcitabine-paclitaxel and capecitabine-docetaxel regimens. The expected budget impact of covering everolimus for this group of patients was relatively small.

## PCN50

# BUDGET IMPACT ANALYSIS OF RITUXIMAB FOR CHRONIC LYMPHOCYTIC LEUKEMIC: THE CASE OF BRAZILIAN PUBLIC HEALTH

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**BACKGROUND:** Chronic Lymphocytic Leukemia (CLL) is a malignant disease incurable of the lymphoid system, that affects predominantly elderly, especially in Western countries. Your treatment when necessary is based on the administration of chemotherapy, with association of fludarabine plus cyclophosphamide (FC), the most widely used schema. Recently the addition of rituximab, a monoclonal antibody has been associated with this scheme, known as FCR. **OBJECTIVES:** To elaborate a budget impact analysis (BIA) of rituximab for chronic lymphocytic leukemic for help the decision making. **METHODS:** A BIA of association of fludarabine plus cyclophosphamide in SUS compared to rituximab with this scheme was performed. The analysis' time horizon was 5 years, using a CLL prevalence of 4.4% and 25% of CLL refractory between them (1.634), considering an annual growth rate of 0.8143% and a market share of 25% and 75% according the classification of diagnosis and stage of Rai & Keating. The mean total rituximab dose considered was 375/mg/m<sup>2</sup>, with an average personal weight and size of 70kg and 1,70m, which means 681,75mg per cycle. All cost purchase prices and remission rate of rituximab (22%) and stand chemotherapy (9%) were obtained at one year trial in the onco-hematology high complexity Clinical Hospital of the Faculty of Medicine of Ribeirão Preto HCFMRP / USP hospital measured in real 2012. **RESULTS:** The budget impact of FC per year would be 38.7m reais (\$17.5m) in the 1st year, considering 25% of target population, reaching approximately 135.3m reais (\$60.9m) in 75% of patients. For RFC, the budget impact would be 97 million reais (\$43.6m) in the 1st year, reaching 340 million reais (\$153m) in 75% of patients. **CONCLUSIONS:** Treatment costs still impressive, considering that rituximab' values reach 2.5 times the cycle unit values of stand chemotherapy, fact that did not happen in other countries where they are already covered.

## PCN51

# REAL-WORLD COSTS OF LABORATORY TESTS FOR NON-SMALL CELL LUNG CANCER

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